

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 8

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Ref: 8P-AR

Mr. Chris Horn
Senior Area Engineer
Colorado Division
Federal Highways Administration
12300 West Dakota Avenue, Suite 180
Lakewood, Colorado 80228

Ms. Vanessa Henderson I-70 East Environmental Manager Colorado Department of Transportation 2000 South Holly Street Denver, Colorado 80222 JAN 1 2 2017

Re: I-70 East Project - Draft Air Quality Conformity Determination and National Environmental Policy Act Comparative Analysis for the Record of Decision (ROD)

Dear Mr. Horn and Ms. Henderson:

The U.S. Environmental Protection Agency (the EPA) has reviewed the "I-70 East Air Quality Update Draft Air Quality Conformity Determination and National Environmental Policy Act (NEPA) Comparative Analysis" document (hereafter, "Draft Air Quality Update") for the proposed I-70 East Project. Our review and comments are provided pursuant to the transportation conformity provisions of Section 176(c) of the Clean Air Act (CAA), the EPA's transportation conformity regulations (40 CFR parts 51 and 93) and the provisions of NEPA.

The CAA and the EPA's conformity regulations require that interagency consultation with the EPA occurs before conformity determinations are made. The EPA's conformity regulations require that interagency consultation procedures include, specifically, a process for "evaluating and choosing a model, associated methods, and assumptions to be used in hot-spot analyses..." (40 CFR 93.105(c)(1)(i)). We are concerned that the federal interagency consultation requirements were not met for this latest version of the analysis contained in the Draft Air Quality Update because the EPA did not have sufficient technical information on the modeling methods and assumptions before the 30-day public comment period began (December 16, 2016). At this point in time, the EPA still does not have sufficient documentation to verify the methods and assumptions used in the PM<sub>10</sub> hot-spot analysis. Please see our specific comments on the Draft Air Quality Update document, which are provided in the enclosure to this letter.

In addition, the EPA is concerned that the public may not have had sufficient opportunity to comment on this analysis. The EPA's conformity regulations require that agencies making conformity determinations "... establish a proactive public involvement process which provides opportunity for public review and comment by, at a minimum, providing reasonable public access to technical and policy information

considered by the agency at the beginning of the public comment period..." (40 CFR 93.105(e)). It appears that the public has not had access to all of the technical information for this analysis at the beginning of the comment period, because, as stated above, the EPA does not currently have this documentation.

For these reasons, the EPA cannot determine if the transportation conformity regulatory and CAA requirements have been met for the  $PM_{10}$  hot-spot analysis for the I-70 East Project.

Thank you for the opportunity to provide comments on the Draft Air Quality Update document for the I-70 East Project. We look forward to additional discussions with you and your staff on this important project.

If you have any questions, please contact me at (303) 312-6936. If your staff has questions regarding the CAA's transportation conformity requirements or would like to discuss our comments, please contact Scott Jackson, the EPA Region 8's Indoor Air, Toxics & Transportation Unit Chief at (303) 312-6107. For questions related to NEPA, your staff can contact Phil Strobel, the EPA Region 8's NEPA Program Director, at (303) 312-6704.

Sincerely,

Monica Morales

Acting Director, Air Program

Morales

Enclosure

#### Enclosure

The EPA's Information and Comments on the I-70 East Project's Draft Air Quality Conformity Determination and NEPA Comparative Analysis Document

### Background:

On December 16, 2016, the Federal Highway Administration (FHWA) and Colorado Department of Transportation (CDOT) announced that the updated air quality information and analyses for the I-70 East Project were available for public review and comment. As stated, the purpose of these analyses is to address transportation conformity requirements of the federal CAA, to update the NEPA comparative analysis information, and to update the Air Quality Technical Report associated with the Final Environmental Impact Statement (FEIS) that was issued for the I-70 East Project in January 2016. FHWA/CDOT opened a 30-day public comment period on December 16, 2016, which closes on January 14, 2017. The information made available during the public comment period is located at:

http://www.i-70east.com/AirQuality/I-70EastEIS\_DraftAirQuality.pdf

The document from the above website, entitled "I-70 East Air Quality Update Draft Air Quality Conformity Determination and National Environmental Policy Act (NEPA) Comparative Analysis" (hereafter, "Draft Air Quality Update") includes an overview of the project and discussion on the Preferred Alternative and the Central 70 Project that was introduced as Phase 1 of the identified Preferred Alternative in the FEIS. It also includes updated air quality analysis results and a draft project-level transportation conformity determination. The draft project-level transportation conformity determination information contains updated carbon monoxide (CO) and PM<sub>10</sub>¹ hot-spot modeling results. We note that the modeling results involve significant changes to the PM<sub>10</sub> hot-spot analysis protocol that the EPA had discussed and commented on in the past.

## Timeline:

Over the past several years, interagency consultation on this project has occurred beginning with the development of the Draft Environmental Impact Statement (DEIS) of 2008. However, the EPA believes the recent significant changes to the methods and assumptions used in this latest version of the PM<sub>10</sub> hotspot analysis necessitated additional interagency consultation, which has not been completed.

The EPA is providing below a timeline of recent events regarding consultation on this project, which details the EPA's interaction with FHWA/CDOT and the receipt of information regarding the subject Draft Air Quality Update documentation:

- October 25, 2016: A Cooperating Agencies meeting was held where FHWA/CDOT provided a
  general briefing to the EPA and the Colorado Department of Public Health and Environment
  (CDPHE) regarding their overall approach for updating the information for the ROD and revising
  the PM<sub>10</sub> hot-spot modeling for the conformity determination.
- November 18, 2016: FHWA provided a weblink to the EPA to a website containing the CO hotspot modeling information from the EPA's Motor Vehicle Emission Simulator (MOVES) model.

<sup>&</sup>lt;sup>1</sup> PM<sub>10</sub> is Particulate Matter less than or equal to 10 microns in diameter (see: 78 FR 3086 and 40 CFR 50.6).

- November 23, 2016: FHWA provided to the EPA initial PM<sub>10</sub> MOVES and road dust modeling files at the above noted website.
- <u>December 1, 2016</u>: FHWA sent to the EPA an email noting their progress towards providing outstanding modeling information for the PM<sub>10</sub> hot-spot analysis and the EPA-requested additional PM<sub>10</sub> sensitivity analysis.
- <u>December 16, 2016</u>: FHWA advised the EPA that the subject Draft Air Quality Update document and information were available for the EPA's review. On the same day, FHWA/CDOT also advised the public of the new documentation, information and 30-day public comment period on the CDOT I-70 East Project website. As noted, the 30-day comment period would end on January 14, 2017. At this point, the EPA had still not received the requested additional PM<sub>10</sub> hotspot modeling information necessary to complete our review and evaluation.
- <u>December 18, 2016</u>: FHWA uploaded additional AERMOD<sup>2</sup> files for the PM<sub>10</sub> hot-spot modeling, that were requested by the EPA, to the website for the EPA's use. The additional files were helpful and an important component of the analysis documentation, but the files did not provide the complete information requested and were not sufficient for the EPA to complete its evaluation.
- <u>December 22, 2016</u>: The EPA sent an email to the FHWA that clarified our request for additional PM<sub>10</sub> hot-spot modeling information. This email also provided preliminary EPA comments on the Draft Air Quality Update (see detailed comments below.)
- <u>December 23, 2016</u>: FHWA sent an email with initial responses to the EPA's preliminary comments on the Draft Air Quality Update. This email also noted that the EPA's requested additional information on the PM<sub>10</sub> hot-spot modeling could not be provided because FHWA personnel were not available during the holidays.
- <u>January 4, 2017</u>: FHWA sent an email that provided additional PM<sub>10</sub> hot-spot modeling information. However, the response was insufficient because it was only a summary of the modeling work. The EPA has still not received the supporting information necessary to complete our review and evaluation as detailed below.

### **EPA Comments:**

1.) Request for Additional Information: The EPA provided preliminary comments to FHWA and requested further information regarding the Draft Air Quality Update on December 22, 2016. Several of these comments and requests continue to remain relevant and are provided below in addition to other comments.

Our overall comment, with respect to the Draft Air Quality Update, is that the EPA has not been provided the necessary information in order for the EPA to complete its review and evaluation of the PM<sub>10</sub> project level conformity hot-spot modeling. FHWA/CDOT departed from their past practice of sharing a modeling protocol with the EPA, as FHWA/CDOT had done for the earlier versions of the PM<sub>10</sub> hot-spot analysis in the Supplemental Draft EIS (SDEIS) and the FEIS. In this case, no modeling protocol was provided for this revised approach even though it differed from the previous approach in some significant ways. For example, the revised approach included a new analysis year, comprehensively changed the method for emissions modeling in how links were defined and in the traffic data and fleet mixes used based on the latest travel demand model, and changed the air quality modeling (e.g., dividing the modeling area into three geographic areas instead of the previous two).

<sup>&</sup>lt;sup>2</sup> AERMOD is the American Meteorological Society/Environmental Protection Agency Regulatory Model.

We have considered the merits of the revised modeling approach employed by the FHWA. However, as noted above, due to insufficient information the EPA is unable to complete its review and evaluation. Neither the EPA nor other interested parties could evaluate the analysis as the documentation provided was insufficient, which compromises the sufficiency of the public notice and opportunity for comment on the draft analysis.

For example, FHWA did not provide link-by-link traffic volumes or the scripts and intermediate tables that were used to calculate the grams/second rates for volume sources. The documentation does not show how the emissions factors from the MOVES modeling are applied in the AERMOD input files. As outlined in Section 3.10 of the EPA's PM hot-spot guidance,<sup>3</sup> the documentation and modeling files included in the analysis should be of sufficient detail so that the reviewer can evaluate how each step in the modeling process was completed. This is especially important when the modeler chooses to use an approach not explicitly discussed in the EPA's PM hot-spot guidance. In this particular case, the approach uses a MOVES look-up table and link traffic volumes to calculate volume source emission rates.

Reviewing and verifying this analysis is especially important in light of the fact that the analysis shows the preferred alternative scenario leads to  $PM_{10}$  air quality concentrations right at the level of the  $PM_{10}$  National Ambient Air Quality Standard (NAAQS). Also, the EPA notes that the air quality contribution from the project itself substantially decreased in the Draft Air Quality Update documentation analysis to  $41.196~\mu g/m^3$ , down from  $57.0~\mu g/m^3$  as seen in the previous version of this analysis that was documented in the FEIS (ref. Exhibit 5.10-12, page 5.10-30 of the FEIS). Without the requested information, the EPA is unable to evaluate the basis for this significant change.

2.) <u>Status of Interagency Consultation</u>: The EPA has concerns with FHWA/CDOT's characterization of interagency consultation that occurred regarding the Draft Air Quality Update. There are several statements in the document that indicate that the EPA had reviewed the protocol for this last version of the analysis, or the analysis itself:

Page 6 of the "Draft Air Quality Conformity Technical Report" states:

"The approach to the air quality analysis has been documented throughout the I-70 East Project in the Air Quality Analysis Protocol and its updates. The procedures in this document [the protocol] have been reviewed through Interagency Consultation for each step in the NEPA process."

Page 1 of the "Air Quality NEPA Comparison Technical Report" states, "The Interagency Consultation process continued to support the air quality analysis through the review of the updated ... [CO and PM10] modeling completed for the ROD." (p. 1, lines 22-25).

The EPA was not afforded an opportunity to review the modeling protocol for the revised modeling approach used in this latest version of the I-70 East Project's hot-spot analyses. We requested to see the modeling for the analyses at the end of October 2016. We did not receive the full Draft Air Quality Update document until the start of the public comment period (December 16, 2016). Further, as noted above, information we requested regarding the PM<sub>10</sub> modeling analysis has not been provided. Therefore, EPA does not agree that we, as part of the interagency

<sup>&</sup>lt;sup>3</sup> "Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM<sub>2.5</sub> and PM<sub>10</sub> Nonattainment and Maintenance Areas," November 2015, EPA420-B-15-084.

consultation, "supported" the analysis through the "review of the updated modeling completed for the ROD."

- 3.) <u>Truck Percentages</u>: To help us in our review of the Draft Air Quality Update, the EPA requested additional documentation with regard to the truck percentages used in the modeling. As part of the information released to the EPA on December 16, 2016, the FHWA provided a spreadsheet that illustrated the link-by-link truck information that was used. The EPA requested additional information as there were some links listed with zero percent trucks on both the I-70 corridor and surface streets that were expected to include trucks. FHWA's December 23<sup>rd</sup> email response indicated that corrections were made by the local transportation planning agency, the Denver Regional Council of Governments (DRCOG). It is unclear to the EPA whether the spreadsheet of December 16<sup>th</sup> is the uncorrected or corrected version. It is also unclear how the AERMOD input files reflect this information (see Comment 1 above).
- **4.)** <u>Lanes Modeled</u>: In the Draft Air Quality Update, section 2 "Project Description," second paragraph of the Air Quality Conformity Report, it is noted that the I-70 East Project will include two lanes in each direction as "managed" lanes. This section notes that only one lane will be open for use "... until traffic demand is met to open the second lane." It is unclear from the Draft Air Quality Update, or the information provided to the EPA, as to how many of the managed lanes were modeled; one in each direction or two in each direction? This information is necessary to review and evaluate the CO and PM<sub>10</sub> project level conformity hot-spot modeling.
- 5.) Other Comments for Documentation Clarity: The following are comments on corrections or additional information that need to be included in the documentation of the Draft Air Quality Update.
  - A.) The Draft Air Quality Update points to the previous version of EPA's PM hot-spot guidance in several places. For example, page 8, line 4 of the Draft Air Quality Update has the November 2013 EPA document number instead of the November 2015 document number. Also, page 5, line 14 of the Air Quality NEPA Comparison Report (of the Draft Air Quality Update) has the November 2013 EPA document number.
  - **B.**) There are several instances where the Draft Air Quality Update refers to the March 16, 2016 adoption of the 2040 Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP) by DRCOG, the Denver Metropolitan Planning Organization (MPO), but a more recent version is available. For example, refer to page 4, paragraph 3 under the heading "Regional Air Quality Conformity (Central 70 Project)." Also, see pages 4 and 5, sections 4 and 5, of the Draft Air Quality Update's "Air Quality Conformity Technical Report."

As specified by transportation conformity requirements, the I-70 East Project must be contained in a conforming RTP and TIP before a ROD can be issued. While the I-70 East Project was contained in DRCOG's March 16, 2016 adoption of the RTP and TIP (and was found to conform by FHWA in a letter dated May 18, 2016), the EPA notes that DRCOG performed the most recent conformity determination on September 21, 2016, which contained additional, relevant information with regard to the I-70 East Project. Therefore, we recommend that the September 21, 2016 regional conformity determination be noted in the Draft Air Quality Update along with the prior May 18, 2016 FHWA approved conformity determination.

C.) In the Draft Air Quality Update, page 7 of the "Air Quality Conformity Technical Report," section entitled "Background concentrations," it is stated that the CO hot-spot modeling background value for this documentation and modeling used 5.5 ppm for the 1-hour CO NAAQS

and 3.6 ppm for the 8-hour CO NAAQS. As these are different background values than were used in the FEIS, the EPA recommends that the revised monitoring values be presented in the Draft Air Quality Update along with a discussion as to how the modeling background values were selected.

- **D.**) In the Draft Air Quality Update, page 9 of the "Air Quality Conformity Technical Report," section entitled "Background concentrations," the background value used for the current  $PM_{10}$  hotspot analysis was  $113 \,\mu\text{g/m}^3$  for the  $PM_{10}$  NAAQS. The EPA provided this value to FHWA as the correct value to use from the monitor selected based on interagency consultation. However, as this is a different background value than was used in the FEIS, we recommend that the 2012-2014 monitoring values be presented in the project documentation along with a discussion as to how the  $113 \,\mu\text{g/m}^3$  was selected in order for the public to understand why the change was made.
- E.) In the Draft Air Quality Update, "Air Quality Conformity Technical Report," section entitled "Draft Project-Level Conformity Analysis," last paragraph on page 10, it is noted that the Metro-Denver/North Front Range (NFR) area is designated nonattainment and classified as "Marginal" for the 2008 8-hour ozone NAAQS. This is no longer correct as the Metro-Denver/NFR area is now a "Moderate" nonattainment area (see: 81 FR 26697, May 4, 2016).